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JACKSON-FAVARD TYPE PROBLEMS FOR THE WEIGHT $\exp(-|x|)$ ON THE REAL LINE

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Abstract

It is known that the Favard inequality on polynomial approximation with respect to the weight $\exp(-|x|)$ fails to hold [7]. We show that this phenomenon holds for higher derivatives as well, while a modified version suggested by Lubinsky can be established.

Keywords: weight, modulus of smoothness, Jackson-Favard type estimate, polynomial approximation.

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